

III. REMARKS

1. Claims 6 and 10 are amended to correct the antecedent basis error noted by the Examiner. Claim 13 is amended to correct a grammatical error. The changes do not further narrow or limit the scope of the claim and is not made for reasons related to patentability. Claim 21 is new.

2. Claims 2 and 4-20 are not unpatentable over Brown (EP 0376487) in view of Bergum et al. ("Bergum") under 35 U.S.C. §103(a). In order to establish a *prima facie* case of obviousness under 35 U.S.C. §103(a), the references, when combined, must teach or suggest all of the limitations recited in the claims (M.P.E.P. §2142). Bergum in view of Brown does not disclose or suggest each element of Applicant's invention as is required to establish a *prima facie* case of obviousness under 35 U.S.C. §103(a).

Brown is directed to extending the number of accounting cycles that can be recorded in an EEPROM of any particular endurance since E²PROM technology generally allows a limited number of rewrites. (Page 2, lines 24-27). In Brown, data is stored in the two non-volatile memory devices. (Page 4, line 5). All critical information is maintained redundantly in the RAM 104 and E²PROM 106. (Page 4, lines 7-8). An update of critical data within the CMOS is followed by a corresponding update to the E²PROM memory. FIGS. 4A, 4B are maps of buffers of the CMOS memory while FIGS. 4C, 4D are maps of the registers of the E²PROM. (Page 4, lines 13-14). Brown generally relates to the storage of related data items so that data needed for an operation can be retrieved more simply using ascending buffer organization whenever a circular buffer is not required. (Page

4, lines 34-35). This does not disclose or suggest Applicant's invention according to claims 2 and 4-20.

Referring to claim 2 of Applicant's invention, the claim recites the following:

A first memory sized to accommodate a body of data; a second memory not large enough to accommodate the body of data, and an encryption key is stored within the second memory. The cryptographic engine in the postal security device stores the encryption key within the second memory, encrypts the body of data with respect to the encryption key and stores the encrypted body of data in the first memory. Nothing of the sort is disclosed or suggested by Brown. As noted previously, although Brown includes two non-volatile memories, all critical information is redundantly maintained in the two devices and uses "separate memory technology" (CMOS and E²PROM) to help guard against the possibility of a dual device failure or a bad manufacturing lot. The redundancy allows data located in a 'bad' section of either of the memories to be recreated from information in the alternate memory device." (Page 4, lines 5-12). This is not the same as storing a body of data in a first memory, an encryption key in a second memory, and encrypting the body of data with respect to the encryption key and storing the encrypted body of data in the first memory as is claimed by Applicant.

Applicant's invention further goes on to recite that upon power-up, the encrypted body of data is decrypted with respect to the encryption key (stored in the second memory). Again, this is not taught by Brown.

The "decrypted" body of data in Applicant's invention is "temporarily" stored in a third memory. A unique feature of Applicant's invention here being that upon power down, the encrypted body of data is lost. Again, there is no such disclosure in Brown. As noted previously in Brown, all "critical information within the system is maintained redundantly." (Page 4, lines 7-8). Brown does not teach losing a decrypted body of data.

Furthermore, as recited in Applicant's invention, in the event of tampering, power is lost and data stored in the second memory and third memory (the encryption key and the decrypted body of data) are lost. Again, no such disclosure by Brown.

Bergum does not overcome each of the aforementioned deficiencies of Brown.

Although Bergum relates to storing and utilizing encryption/decryption keys (Col. 2, lines 36-38), the features of Applicant's invention described above are neither disclosed nor suggested. Bergum merely relates to storing encrypted data in non-volatile memory and upon power-up decrypting the data and storing the decrypted data in RAM such that if power is lost, or the unit is tampered with, the keys in RAM are lost or erased. (Col. 2, lines 35-55). What Bergum does not teach is a first memory sized to accommodate a body of data and a second memory not large enough to accommodate the body of data as claimed by Applicant. Bergum also does not teach storing the encrypted body of data in the first memory, storing the encryption key within the second memory, and upon power-up, decrypting the encrypted body of data and temporarily storing the decrypted body of data in a third memory, whereupon power down, the decrypted body of data is lost, as is claimed by Applicant. Bergum merely teaches

that upon power-up, the encrypted keys are decrypted, and the reconstructed keys are stored in volatile memory. (Col. 2, lines 42-45). Bergum is solely directed to providing enhanced security to cause active erasure of the keys stored in RAM on power off or tampering.

Since neither Brown nor Bergum teach or disclose each element of Applicant's invention, the combination cannot as well. Since each element of Applicant's invention according to claims 2 and 4-20 is not disclosed or suggested by Brown and Bergum, a *prima facie* case of obviousness under 35 U.S.C. §103(a) cannot be established. Thus, claims 2 and 4-20 should be allowable.

Also, with respect to claim 4, neither Brown nor Bergum disclose or suggest a second non-volatile memory device having storage capacity only large enough to store an encryption key and minimizing the battery power to maintain the postal security device by not maintaining the decrypted data in the third memory device.

With respect to claims 9 and 12, there is no disclosure or suggestion in either Brown or Bergum related to improving battery power consumption during power off periods as recited in the claim.

Claims 5-8, 10-11, and 13-20 should be allowable at least in view of their respective dependencies.

Furthermore, in order to establish a *prima facie* case of obviousness under 35 U.S.C. §103(a), there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or combine reference teachings. There must also be a reasonable expectation of success, and the

reference(s), when combined, must teach or suggest all of the claim limitations. (See M.P.E.P. §2142). As noted above, Brown in view of Bergum does not disclose or suggest each feature of Applicants' invention as claimed. Thus, at least for that reason a *prima facie* case of obviousness cannot be established.

Applicants also submit that there is no suggestion or motivation to modify the references as proposed by the Examiner. The Examiner's proposition that Applicant's invention would be obvious as recited in the claims is not supported by the factual contents of Brown in view of Bergum. The references themselves and/or the knowledge generally available to one of skill in the art do not provide the requisite motivation or suggestion to modify the references as proposed for purposes of 35 U.S.C. §103(a). When "the PTO asserts that there is an explicit or implicit teaching or suggestion in the prior art, it must indicate where such a teaching or suggestion appears in the reference". In re Rijckaert, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993). The Examiner is requested to provide an indication as to where any such teaching, suggestion or motivation appears in the references. Absent such a teaching, it is submitted that a *prima facie* case of obviousness over Brown in view of Bergum under 35 U.S.C. §103(a) is not established.

3. It is respectfully submitted that Brown and Bergum have been combined improperly for purposes of 35 U.S.C. §103(a). References may be combined under 35 U.S.C. §103(a) only if the references are analogous art. In this case Brown and Bergum are not analogous art. A reference is analogous art if:

- 1) The reference is in the same field of endeavor as the applicant's, or

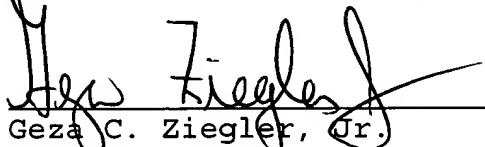
- 2) The reference is reasonably pertinent to the particular problem with which the applicant was concerned.

Neither Brown nor Bergum are in the same field as the Applicants' invention. Applicant's invention is directed to reducing power consumption during power off periods by keeping a smaller amount of data in the second memory and protecting data from tampering. Brown is not pertinent to this problem. Brown is directed to an electronic postage meter using two different types of non-volatile memory devices 104,106. The purpose of Brown is to use a lower endurance E²PROM device in a postage meter to allow real-time accounting in both memories, and to extend the number of accounting cycles that can be recorded in a E²PROM. (Page 2, lines 24-27). Bergum on the other hand is directed to controlling devices during power down transitions (Abstract), and provides for greater security in storing and utilizing encryption/decryption keys. Thus, Brown and Bergum do not address the problems addressed by Applicant's invention. Since Brown and Bergum are not in the same field of endeavor as the Applicant's endeavor and are not reasonably pertinent to the particular problem with which the Applicants were concerned, Brown and Bergum are not analogous art. Therefore, Brown may not properly be combined with Bergum for purposes of 35 U.S.C. §103(a).

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

A check in the amount of \$110 is enclosed for a one-month extension of time. The Commissioner is hereby authorized to charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,


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30 SEPTEMBER 2003
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